

REMARKS

SPECIFICATION AMENDMENTS:

Page 11, Lines 17-23 (commencing on pg. 5 of the present transmittal):

The specification paragraph (pg. 11, lines 17-23) provided in the "IN THE SPECIFICATION" section above includes text from the U.S. Provisional Serial No. 60/044,821, filed April 25, 1997, from which the present application claims priority. In particular, the text from the following passage of this provisional is included: pg. 13, line 27 to pg. 14, line 7.

Page 17, Line 6 (new text) (commencing on pg. 6 of the present transmittal):

The specification text requested to be added at page 17, line 6, provided in the "IN THE SPECIFICATION" section above is from U.S. Provisional Serial No. 60/044,821, filed April 25, 1997, page 24, line 30 to page 25, line 29 from which the present application claims priority. Note, this passage is taken verbatim from this provisional except for changing the labelings (6.1) through (6.3) to the labelings (4.1) through (4.3).

Page 62, Lines 20-30 (commencing on pg. 12 of the present transmittal):

The specification paragraph at page 62, lines 20-30 provided in the "IN THE SPECIFICATION" section above includes amendments from a previously amended version thereof. However, this specification paragraph was previously amended incorrectly, and a newly amended version is requested to be entered in the "IN THE SPECIFICATION" section above. Accordingly, so that the Examiner can more clearly determine the appropriateness of this amended paragraph, the originally filed version of the paragraph follows showing all amendments to this paragraph.

If appropriate, a variation of the above process includes a location center initiated forced hard hand-off of the mobile station from a primary base station, e.g., 122b associated with CMRS-A, to a new primary base station associated with CMRS-B, e.g., 122d. A forced hand-off will further provide improvements in reducing systemic timing errors which may be inherent among base stations owned by different CMRS. After the appropriate signal measurements have been reported the location system 142 can revert the hand-off back to the original CMRS. Other location system components shown in Fig. 3 include ~~a controller~~ the L-API 14 which includes the location applications

programming interface 136 (L-API-MSC) for communications interface with multiple CMRS mobile switching centers, via physical interfaces 176a and 176b.

Page 63, Line 24 to Page 64, Line 1 (commencing on pg. 13 of the present transmittal):

The specification paragraph at page 63, line 24 and ending at page 64, line 1 provided in the "IN THE SPECIFICATION" section above includes amendments from the previously amended version thereof. However, this specification paragraph was previously amended incorrectly, and a newly amended version is requested to be entered in the "IN THE SPECIFICATION" section above. Accordingly, so that the Examiner can more clearly determine the appropriateness of this amended paragraph, the originally filed version of this paragraph follows showing all amendments to this paragraph.

Referring to Fig. 5, Location Center-base station access, multiple CMRS, an alternative embodiment is provided to extract the wireless location signal measurement data from each base station associated with each of multiple CMRS. Given base station 122i and 122j are operated by CMRS-A and base station 122k and 122m are operated by CMRS-B, a communication circuit provides connectivity with the location application programming interface - base station (L-API-BS) ~~409~~ not shown. The L-API-BS ~~409~~ is in communication with ~~controller~~ the L-API 14 in the location center 142. The communications circuit can be any of several conventional transport facilities, such as a private line circuit, a DS-1 or T-1 carrier circuit, frame relay circuit, microwave circuit, or other data communications circuit.

Page 126, Line 31 to Page 128, Line 3 (commencing on pg. 21 of the present transmittal):

The specification paragraph beginning at page 126, line 31 and ending at page 128, line 3 provided in the "IN THE SPECIFICATION" section above includes amendments from the previously amended version thereof. However, this specification paragraph was previously amended incorrectly, and a newly amended version is requested to be entered in the "IN THE SPECIFICATION" section above. Accordingly, so that the Examiner can more clearly determine the appropriateness of this amended paragraph, the originally filed version of this paragraph follows showing all amendments to this paragraph.

Referring to Fig. 42, a vehicle 578 containing various sensors and actuators (not

shown) used to, for example, lock and unlock car doors, sense door position, keypad depressions, sense the condition of the engine and various subsystems, such as brakes, electrical subsystems, sense the amount of various fluid levels, etc., is in communication with a vehicle-based local area network 572, which is in turn connected to a mobile station 140 containing asynchronous data communications capability. The vehicle-based local area network may optionally contain a computer (not shown) for control and interfacing functions. The mobile station 140 is always in communication, using the radio air interface with at least one base station 122g, and possibly other base stations 122h. The base stations 122g and 122h are in communication with the mobile switch center 112 via transport facilities ~~178~~ 176. The mobile switch center 112 is in communication with the location system 142 and the public switched telephone network ~~426~~ 124 via interoffice trunks 600. In addition the mobile switch center 112 is also in communication with the location system 142 via the location system - mobile switch center physical interface 178. The physical interface provides two-way connections to the location applications programming interface (i.e., L-API-MS-[[[]]]) 136, which is in communication with a location engine 139, which performs wireless location estimations for the mobile station, which is permanently mounted in the vehicle 578. The location engine 139 represents key components within the location system 142 which together comprise the capability to perform wireless location estimations. The rental car location application 146 is in communications ~~with~~ with the location engine 139 for purposes of initiating wireless location requests regarding the mobile station 140, as well as for receiving wireless location responses from the location engine 139. The application 146 is in communications with the automatic call distributor 546 for purposes of initiating and receiving telephone calls to and from the public switch telephone network ~~426~~ 124, via hunt group interface 500. As one skilled in the art will appreciate, other interfaces (not shown) beyond hunt groups 500, can alternatively be used, such as ISDN interface circuits, T-carrier and the like. The application 146 is in communication with a web server and client 464, which in turn is in communication with the Internet 468 via an Internet access interface 472. As those in the art will understand, an Internet access interface is typically provided by an Internet service provider, also there are other

methods which could be used to complete the Internet connection. The rental car agency contains a workstation or personal computer 582 with an Internet access interface 472 to the Internet 468. The application 146 requests of the location engine 139 to perform a location request periodically regarding the mobile station 140, with the location response information provided the web server and client, 464. For each rental car or vehicle containing a mobile station 140, the location, as well as various information about the rental car or vehicle can be ascertained via the above described infrastructure.

CLAIM AMENDMENTS:

Claims 96 through 313:

The term “location provider” has been globally replaced in these claims by the term –location providing system--. This replacement is believed to be somewhat broadening, but within the scope of the novelty of the claims. In particular, the term “location provider” could perhaps be interpreted as requiring such a location provider to be distinct in some fashion from a service provider (e.g., operated independently of any or all mobile station wireless service providers). However, no such narrowing interpretation is desired. Thus, it is believed that the term –location providing system— will reduce any tendency for claim readers to assume that the “location providing system” must be an entity distinct from, e.g., mobile station service providers, or any other application utilizing the “location providing system”.

Claim 86:

This independent claim has been amended to recite additional limitations. It is believed that substantially all of the previous limitations are still present; i.e., (a) a wireless network for communicating with a plurality of mobile stations, (b) an interface that supplies (now “provides”) a “mobile station location obtaining system” with measurements from signals in both a “forward bandwidth” and “reverse bandwidth”, and (c) the “mobile station location obtaining system” uses both measurements of both the forward and reverse signals to determine the location of the mobile station.

However, this claim is now additionally directed to the above recited interface “accepting emergency related messages”, and outputting further information for identifying at least one network “communication station” used in communicating

“emergency call related information” with the “particular mobile station” to be located. Accordingly, it is believed that Claim 86 is in condition for allowance.

Claim 96:

This independent claim has been amended to remove the phrases “first geolocation related task” and “second geolocation related task”. Each of these phrases is only mentioned once in the claim, and there their deletion does not affect the structural relationships between other limitations of the claim. Moreover, the claim is believed to be easier to read without these phrases.

Clause (b) of Claim 96 has been amended to clarify what is being recited by this clause. Accordingly, it is believed that no increase or decrease in claim scope results from the clause (b) amendment. Applicants have provided this amendment for no other reason than to make the claim more easily understood, which is in the public interest. Accordingly, it is believed that Claim 96 is in condition for allowance.

Claim 97:

This independent claim has been amended similarly to Claim 96, and for the same reasons. Accordingly, it is believed that Claim 97 is in condition for allowance.

Claim 98:

This independent claim also has been amended similarly to Claims 96 and 97, and for the same reasons as provided above. Additionally, however, in clause (a) of the claim, the word “from” has been changed to –using--. This wording is consistent with the corresponding wording in both Claims 96 and 97. Accordingly, it is believed that Claim 98 is in condition for allowance.

Claims 99 through 169:

These claims are dependent upon Claim 96. A few have been amended in various ways. All are believed to be allowable.

Claims 170 through 240:

These claims are dependent upon Claim 97. A few have been amended in various ways. All are believed to be allowable.

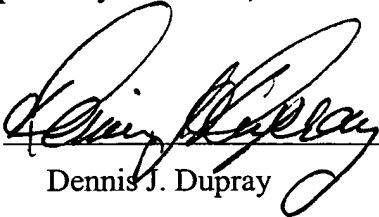
Claims 241 through 313:

These claims are dependent upon Claim 98. A few have been amended in various ways. All are believed to be allowable.

Accordingly, since all claims are believed to be in condition for allowance, it is requested that the present application be reconsidered. It is believed that no fees, except for the issue fee, are due with the present transmittal. If any other fees are due, the undersigned Applicant requests a phone call at 303-863-2975.

Date: Dec. 8, 2004

Respectfully submitted,

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